IN THE CLAIMS

Please enter the following amendments. The amendments are fully supported in the specification and no new material is added.

- 1. (Currently Amended) A low-impedance band-gap reference circuit, comprising:
 - a band-gap reference unit circuit;
 - a buffer circuit electronically coupled with said band-gap reference unit eircuit; and
 - a voltage pull-up device electronically coupled with between said band-gap reference unit eircuit and said buffer circuit, wherein said voltage pull-up device acts to reduce a required supply voltage to maintain a band-gap reference voltage and wherein said voltage pull-up device is implemented as a transistor with a VBE of less than 1.0 volts.
- 2. (Currently Amended) A low impedance band-gap reference circuit as described in Claim 1, wherein said band-gap reference circuit resides in an integrated circuit device.
- 3. (Currently Amended) A low impedance band-gap reference circuit as described in Claim 1, wherein said band-gap reference circuit is implemented in a silicon substrate.
- 4. (Currently Amended) A low-impedance band-gap reference circuit as described in Claim 1, wherein said buffer circuit is implemented as a transistor.
- (Cancelled)
- 6. (Currently Amended) A low impedance band-gap reference circuit as described in Claim 1, wherein said band gap reference voltage is provided by current through a transistor with a VBE of less than 1.0 volts.
- 7. (Currently Amended) An electronic device, comprising:
 - a silicon substrate;
 - electronic circuitry constructed in said silicon substrate; and
 - a low-impedance band-gap reference circuit comprising a band gap reference unit, a buffer circuit, and a voltage pull-up device electronically coupled in said electronic device, wherein said electronic circuitry requires reference to the output voltage of said band-gap reference circuit and said band-gap reference circuit is enabled for low impedance by said a

NSC-P05052/JPH/MRH Examiner: Cunningham, Terry D. Serial No.: 09/970,297 2 Art Unit: 2816

buffer circuit, wherein said buffer circuit comprises comprising a transistor with a VBE of less than 1.0 volts, and wherein said voltage pull-up device is coupled between said bandgap reference unit and said buffer circuit.

- 8. (Original) An electronic device as described in Claim 7, wherein said electronic device is an integrated circuit device.
- 9. (Cancelled)
- 10. (Cancelled)
- (Currently Amended) An electronic device as described in Claim 7, wherein said transistor 11. with a VBE of less than 1.0 volts less than 1.0 Vbe is connected as an emitter follower.
- 12. (Original) An electronic device as described in Claim 7, wherein said band-gap reference circuit is enabled for low supply voltage.
- An electronic device as described in Claim 12, wherein said band-gap reference circuit is 13. enabled for said low supply voltage by a voltage pull-up device.
- 14. (Cancelled)
- (Previously Presented) An electronic device as described in Claim 13, wherein said band 15. gap reference voltage is provided by current through a transistor with a VBE of less than 1.0 volts.
- (Currently Amended) In an electronic device, a method for providing a reference voltage, 16. comprising:

flowing current through an electronic element such that the band-gap voltage of said electronic element provides said reference voltage;

providing a buffer circuit and a band gap voltage reference unit coupled to said buffer circuit enabled to provide low impedance; and

adjusting the voltage across said buffer circuit, by use of a voltage pull-up device coupled between said buffer circuit and said band gap voltage reference unit, so that said band-gap reference voltage is maintained, wherein said voltage across said buffer circuit is a VBE of less than 1.0 volts.

Examiner: Cunningham, Terry D. NSC-P05052/JPH/MRH Art Unit: 2816 Serial No.: 09/970.297

- 17. (Original) A method as described in Claim 16, wherein said electronic device is an integrated circuit device.
- 18. (Original) A method as described in Claim 16, wherein said buffer circuit is implemented as a transistor circuit.
- 19. (Original) A method as described in Claim 18, wherein said transistor circuit is connected as an emitter follower.
- 20. (Original) A method as described in Claim 16, wherein said band-gap reference circuit is enabled for low supply voltage.
- 21. (Currently Amended) A method as described in Claim 20, wherein said band-gap reference circuit is enabled for said low supply voltage by a voltage pull-up device coupled between said buffer circuit and a band gap reference unit.
- 22. (Cancelled)
- 23. (Previously Presented) A method as described in Claim 21, wherein said band gap reference voltage is provided by current through a transistor with a VBE of less than 1.0 volts.

NSC-P05052/JPH/MRH Examiner: Cunningham, Terry D. Serial No.: 09/970,297 4 Art Unit: 2816